

### REMARKS

Claims 14, 15, 20, 21, 26, 27, and, upon entry of this amendment, new claims 28-43 are pending. Applicants have cancelled claims 1-13, 16-19, and 22-25. Claims 14, 15, 20, 26, and 27 have been amended. Claims 28-43 are newly presented. The above amendments are submitted without waiver or prejudice to Applicants' ability to pursue previously pending subject matter in this or a continuing patent application.

Claim 7 is rejected under 35 U.S.C. 112, first paragraph as failing to comply with the enablement requirement. See the Office Action, page 2, lines 8-9. Claim 7 has been cancelled.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph as being indefinite. See the Office Action, page 2, lines 20-22. Claim 7 has been cancelled.

Claims 1, 3-5, 7, 8, 10-12, 14, 16-18, 20, and 22-24 are rejected under 35 U.S.C. 102(b) as anticipated by Sawada and Jinno, Electrophoresis 1997, 18, 2030-2035, ("Sawada and Jinno 1997"). See the Office Action, page 3, lines 17-19.

Sawada and Jinno 1997 discloses capillaries treated with 3-methacryloxypropyl-trimethoxysilane and then coated with 4% w/v linear polyacrylamide to reduce electroosmotic flow. See page 2032-2033, section 2.3. Sawada and Jinno 1997 is not understood to disclose use of capillaries that are free of a covalent coating, as recited in claim 14. Neither does Sawada and Jinno 1997 disclose the method of independent claim 20, which, as amended herein, recites introducing, into a capillary tube, free of a covalent coating, a gel matrix of at least one random, linear copolymer. Hence, Sawada and Jinno 1997 do not anticipate claims 14 and 20 nor their respective dependant claims. For example, it is submitted that the poly(vinylpyrrolidone) of new dependent claim 31 is not a covalent coating. The present application describes use of poly(vinylpyrrolidone) for example at page 20, lines 9-11.

Claims 1, 6, 8, 13, 14, 19, 20, and 25 are rejected under 35 U.S.C. 102(a) as anticipated by Sawada and Jinno, Analyst, July 1998, Vol. 123, pp. 1471-1476, ("Sawada and Jinno 1998"). See the Office Action, page 5, lines 4-5.

Sawada and Jinno 1998 discloses capillaries treated with 3-methacryloxypropyl-trimethoxysilane and then coated with 4% w/v linear polyacrylamide to reduce electroosmotic flow. See page 1472, section, *preparation of linear polymer filled-colums*. Sawada and Jinno

1998 does not disclose or suggest either of independent claims 14 or 20 for the same reasons described in the previous section for Sawada and Jinno 1997.

Claims 1, 2, 3, 5, 8, 9, 10, 12 and 26 are rejected under 35 U.S.C. 102(a) as anticipated by Cottrell et al., U.S. Patent No. 4,254,249 ("Cottrell"). See the Office Action, page 5, lines 10-11.

Cottrell discloses copolymers for use in oil recovery operations (See the abstract). One copolymer is a copolymer of N,N-dimethylacrylamide and acrylamide. Cottrell, however, neither discloses nor suggests use of copolymers for electrophoresis or capillary tubes including copolymers. Accordingly, Cottrell does not anticipate independent claim 26, which recites a capillary tube, free of a covalent coating.

Claims 1, 2, 6, and 26 are rejected under 35 U.S.C. 102(e) as anticipated by Takano et al., U.S. Patent No. 6,013,359 ("Takano"). See the Office Action, page 6, lines 8-9.

Takano discloses a printing paper coated with a nonionic acrylamide and a method of producing the same. The printing paper of Takano does not anticipate the capillary tube, free of a covalent coating of independent claim 26.

Claim 27 is rejected under 35 U.S.C. 102(e) as anticipated by Hooper et al., U.S. Patent No. 5,885,432 ("Hooper"). See the Office Action, page 6, lines 15-16.

It is submitted that Hooper discloses only use of coated capillaries and neither discloses nor suggests use of a capillary tube, free of a covalent coating. (See column 7, lines 56-60, and columns 12 and 13, examples 6-9). Independent claim 27, as amended herein, recites a capillary tube, free of a covalent coating. Accordingly, Hooper does not anticipate claim 27.

Claims 1, 2, 8, 9, 15, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Sawada and Jinno 1997 or Sawada and Jinno 1998 in view of Zhang et al., U.S. Patent No. 6,464,850 B1 ("Zhang"). See the Office Action, page 7, lines 9-10.

As discussed above, neither Sawada and Jinno 1997 nor Sawada and Jinno 1998 discloses or suggests independent claim 14, from which claim 15 depends or independent claim 20, from which claim 21 depends.

Furthermore, it is submitted that Zhang is not available as prior art against the present application. Zhang was filed July 29, 1999 as a continuation-in-part of U.S. Patent Application

No. 09/127,770, now U.S. Patent No. 6,117,293 ("Zhang '293").<sup>1</sup> The present application claims the benefit of U.S. Provisional Application No. 60/115,588, filed January 12, 1999 ("Liu provisional"). It is submitted that the Liu provisional supports claims 15 and 21 as presented herein. Furthermore, it is submitted that no combination of Sawada and Jinno 1997, Sawada and Jinno 1998, and Zhang '293 discloses or suggests claims 15 and 21. Additionally, it is submitted that independent claims 14 and 20, from which claims 15 and 21 respectively depend, are also patentable over Zhang '293 or any combination of the cited references including Zhang '293.

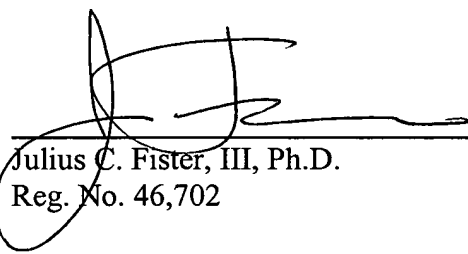
New claim 28 includes language of cancelled claim 7. It is submitted that one would be able to make and use the invention of claim 28 without undue experimentation. For example, as recited in claim 28, a comonomer may impart hydrophobicity to the copolymer. Certainly one of ordinary skill would be able to select relatively hydrophobic monomers from, e.g., those disclosed in the present application. Similarly, one would be able to select monomers imparting other properties recited in claim 28.

Enclosed is a \$120.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050 referencing Attorney's Docket No: 16969-008US1.

Respectfully submitted,

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<sup>1</sup> An IDS listing the Zhang '293 patent is submitted herewith.